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accessDC Study Final Report



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- Deputy Mayor for Health and Human Services (DMHHS)
- District Department on Disability Services (DDS)
- Metropolitan Washington Council of Governments (MWCOC)

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Sincerely,

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EXECUTIVE SUMMARY

The District of Columbia provides a range of transportation services and programs designed to enhance the mobility of older adults and people with disabilities, who make up approximately 18.5 percent of the District population. Many District residents rely on these services and programs to access health care, social pursuits, and economic opportunities. As of FY 2016, the District spends nearly \$40 million dollars annually to support paratransit and human services transportation programs, such as MetroAccess, TransportDC, and the Seabury Connector. The District also allocates an additional \$10 million per year to support the Medicaid transportation program, which serves residents with low incomes, including many older adults and people with disabilities. While these significant investments strongly benefit District residents, there continue to be service gaps, as well as information gaps, that restrict the mobility of some older adults and people with disabilities.

The accessDC study focused on identifying strategies to improve access for older adults and people with disabilities to District transportation services and programs. The accessDC study team analyzed how District residents learn about available transportation options, which programs and services residents currently use or would like to use, and what barriers residents face while traveling around the District. This information informed the development of study recommendations designed to enhance the quality and distribution of information about available transportation options, as well as work to close service gaps that restrict the mobility of some District residents. The study team placed a specific emphasis on ensuring recommended strategies enable older adults and people with disabilities to access transportation by whatever means they feel most comfortable with, including in person, by phone, and via smartphones and the internet.

The accessDC study commenced in October 2016 and was completed in September 2017. The District Department of Transportation (DDOT) received funding for the study through an inclusive coordinated transportation planning grant from the Administration for Community Living (ACL). The grant was managed in partnership with the Federal Transit Administration (FTA) and was administered by the Community Transportation Association of America (CTAA). Note that the grant only funded this study; additional funding measures need to be identified and appropriated to implement any study recommendations.

REPORT ORGANIZATION

The accessDC study Final Report is organized into the following sections, presented chronologically based on the study process:

- **Introduction:** An overview of the report structure and study goals, as well as an outline of agencies and organizations involved in providing transportation services and programs to District residents.
- **Existing Conditions Overview:** A summary of transportation services and programs available to older adults and people with disabilities in the District, as well as review of

transportation linkages that provide access to information about available services and programs.

- **Stakeholder Collaboration:** An outline of stakeholder participation strategies and a summary of public input.
- **Opportunities and Challenges:** Findings from the existing conditions analysis and the stakeholder collaboration process, synthesized into opportunity and challenge statements.
- accessDC Study Recommendations
 - **General Coordination Recommendations:** Strategies to increase coordination between District agencies and organizations providing transportation services, as well as provide a platform to support accessDC study recommendations.
 - **Transportation Service and Program Improvements:** Recommendations for small and medium scale improvements to existing District transportation services and programs.
 - **Layered Improvement Strategies:** Recommendations for large-scale investments designed to comprehensively enhance transportation access for people with disabilities and older adults.

EXISTING CONDITIONS OVERVIEW

The accessDC study team completed a full review of transportation services and programs available to older adults and people with disabilities in the District. The study team also reviewed transportation linkages that provide access to information about available transportation services and programs.

Transportation Services and Programs

Older adults and people with disabilities in the District of Columbia rely on both general public fixed-route transportation services and specialized transportation options and programs (Figure 1). There are six categories of transportation services and programs available to District residents:

Fixed-Route Public Transportation

- Metrorail
- Metrobus
- DC Circulator
- DC Streetcar

ADA Paratransit Service

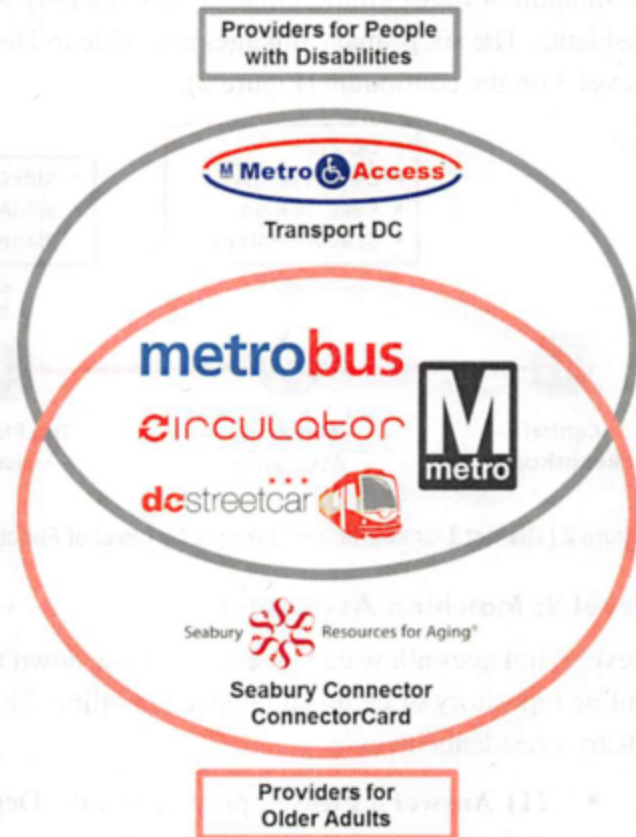


Figure 1 | Primary Transportation Services and Programs by Customer Demographic

- MetroAccess

Alternative Services for MetroAccess Customers

- TransportDC

Senior Transportation Services and Subsidy Programs

- Seabury Connector
- Seabury ConnectorCard

Non-Emergency Medical Transportation (NEMT)

Travel Training Services

- MetroReady

Transportation Linkages

Older adults and people with disabilities learn about transportation services and programs through a variety of means, including from family members, friends, social service providers, and marketing campaigns. District agencies and organizations are also increasingly providing comprehensive resources—known as transportation linkages—designed to help older adults and people with disabilities identify transportation options that work best for them. The accessDC study team used a five-level continuum of transportation linkage functionality to assess linkage services available to District residents. The six primary linkages available to District residents currently fall into either Level 2 or Level 3 on the continuum (Figure 2).



Figure 2 | District Transportation Linkages by Level of Functionality

Level 2: Matching Assistance

Level 2 linkages allow customers to narrow down their potential mobility options by searching an online repository or calling a telephone hotline. The four primary Level 2 linkages available to District residents include:

- **211 Answers, Please!**, provided by the Department of Human Services (DHS)
- **DCOA Information & Referral Assistance**, provided by the District Office on Aging (DCOA)
- **Reach A Ride**, provided by the Metropolitan Washington Council of Governments (MWCOC)

- Seabury Information and Referral Hotline, provided by Seabury Resources

Level 3: Trip Planning Assistance

Level 3 linkages allow customers to use an online system or telephone hotline to get directions on how to make a particular trip. Both Level 3 linkages available to District residents are online trip planners for public transportation:

- **RideDC**, provided by the District Department of Transportation (DDOT)
- **WMATA Trip Planner**, provided by the Washington Metropolitan Area Transit Authority (WMATA)

STAKEHOLDER COLLABORATION

The accessDC study team strove to engage and collaborate with older adults and people with disabilities throughout the study process. At the outset of the study, DDOT formed a Project Advisory Committee (PAC) consisting of community members that rely on transportation services serving older adults and people with disabilities, as well as agency partners that provide these services. The PAC met four times at key study milestones, allowing for an iterative process that balanced the experiences and viewpoints of the users, agency stakeholders, and the study team. The study team also collected direct feedback from the public at two “Open Mic Sessions” and through a customer survey that received responses from approximately 250 District residents.

PAC Meetings and Open Mic Sessions

The accessDC study team organized PAC meetings and Open Mic Sessions at four key project milestones. Conversations during each of these six meetings provided valuable insights for the project team, leading to substantive modifications to the study process and the incorporation of new or modified study recommendations. Key outcomes from the stakeholder collaboration process include:

- A fulfilled recommendation to hold all study meetings during the daytime and before the 15th day of each month, enabling MetroAccess customers to use TransportDC to access meeting locations.
- A specific focus on ensuring that study recommendations enable older adults and people with disabilities to access transportation service information through whatever means they are most comfortable with, including by phone and in-person, rather than just via computers and the internet.
- Study recommendations generated by stakeholders including simplifying the Seabury ConnectorCard application process and developing community-focused travel training options.

Lessons Learned

A key element of the inclusive coordinated transportation planning grant program is to create replicable models for collaborating with older adults and people with disabilities. PAC members also

recommended that the accessDC study record “lessons learned” for future stakeholder outreach processes in the District. Key recommendations for future studies include:

- Work with an initial stakeholder group to determine specific transportation challenges that may limit project participation if not properly addressed.
- Disperse meetings across the study area, and hold meetings in locations where older adults and people with disabilities live or congregate.
- Hold meetings during the day, or hold longer meetings with multiple presentations in order to enable participants to be home before dark.
- Provide both verbal and written feedback opportunities.
- Encourage conversation between “official” study participants and community members, when appropriate.

ACCESSDC STUDY RECOMMENDATIONS

After meeting with stakeholders and customers, interviewing service providers, and analyzing the results of a customer survey, the accessDC study team developed recommendations designed to improve the mobility of older adults and people with disabilities in the District. These recommendations are grouped into three categories: General Coordination Recommendations; Transportation Service and Program Improvements; and Layered Improvement Strategies. It should be noted that funding measures would need to be identified and appropriated to implement any of these study recommendations.

General Coordination Recommendations

The accessDC study team developed three strategies designed to increase coordination between DDOT and other District agencies that provide transportation services. These general coordination strategies will also help streamline the implementation of accessDC recommendations and are described briefly below.

Facilitate Inter-Agency and Stakeholder Working Groups

Successful implementation of accessDC study recommendations requires ongoing collaboration between responsible agencies and organizations, as well as continued input from District residents. To ensure a streamlined collaborative process, DDOT should pursue accessDC study recommendations through the following three active or planned working groups:

- The **Transportation Collective**, a working group of staff from agencies that operate or fund transportation services in the District.
- The **Commission on Aging**, a citizen’s advisory group to the Mayor, District Council and DC Office on Aging focused on issues regarding older adults in the District.
- The **Multimodal Accessibility Advisory Council**, an advisory group focused on increasing access to transit and public space for people with disabilities.

Establish Open Data Policy

DDOT and its partners rely on a wide range of software packages and datasets to provide services to District residents, including transportation for older adults and people with disabilities. Many of these software packages are proprietary, limiting opportunities to create higher quality transportation linkage services. To reduce restrictions and facilitate the development of new linkage options, the accessDC study team recommends that DDOT and its partners publish all transportation data using standardized open data formats and rely on open source software when available.

Centralized Transportation Service Information Repository

A key finding from the accessDC existing conditions analysis was that several District agencies have simultaneously created and are maintaining repositories of transportation service information. To ensure that all residents have access to the highest quality information, DDOT and its partners should develop a centralized transportation service information repository for use by all District agencies and organizations. The accessDC study team recommends that this repository be developed by the District in coordination with MWCOG, which manages the most comprehensive transportation information database in the region today.

Transportation Service and Program Improvements

The accessDC study team developed ten small and medium scale strategies designed to improve existing District transportation services and programs. These recommendations focused on three areas: Mobility Management, Travel Training and Customer Outreach; Transportation Subsidy Programs and Alternative Services; and Short-term Layered Strategies Components.

Mobility Management Travel Training and Customer Outreach

While several transportation linkages serve the District, that are few options that proactively lay out all of the transportation services and programs available for older adults and people with disabilities. The accessDC study team recommends that DDOT and its partners establish several mobility management programs to help residents more easily identify the transportation options that work best for them. These strategies include:

- Creating specialized transportation marketing materials
- Establishing a Bus Buddies program
- Providing on-site travel training
- Developing an on-site mobility manager and ambassador program at facilities that serve older adults and people with disabilities

Transportation Subsidy Programs and Alternative Services

DDOT and its partners have launched several programs designed to provide more flexible and affordable transportation options for District residents. The ConnectorCard, for example, provides subsidized transportation funds that older adults can use to pay for a wide range of transportation options, such as taxis and public transit. TransportDC provides an affordable and more flexible

alternative for MetroAccess customers. The accessDC study team recommends that District agencies explore potential improvements to these programs, including:

- Expand access to the ConnectorCard or a similar subsidy program
- Streamline the ConnectorCard application and reloading process
- Explore additional options for spontaneous non-employment/non-medical trips for MetroAccess customers

Short-term Layered Strategies Components

The accessDC study team developed three larger-scale layered strategies to improve transportation access for older adults and people with disabilities living in the District (described below). Each of these strategies has smaller-scale components that could provide significant benefits for District residents independent of the broader layered strategy. These components include:

- Train linkage staff to perform “warm hand-offs”
- Create an accessible mobility open data portal
- Allow TransportDC customers to request trips using the DC Taxi Mobile App

Layered Improvement Strategies

The accessDC study team identified and analyzed three large-scale, comprehensive strategies that would fundamentally change how older adults and people with disabilities access District transportation options:

- No Wrong Door Model
- Accessible Trip Planning
- Advanced Trip Booking

Each of these strategies are independently implementable, but also have compounding benefits if implemented together. The study team refers to these approaches as “layered improvement strategies.” The accessDC study team recommends that DDOT first explore the No Wrong Door Model and Accessible Trip Planning strategies, and reconsider Advanced Trip Booking after further study.

No Wrong Door Model

Many District residents find that identifying and utilizing a transportation option can involve a long, confusing, and uncomfortable process. No Wrong Door is a person-centered service delivery model designed to remove barriers to obtaining and managing services, limiting the amount of time a client must spend navigating through an often-complicated web of providers. In a transportation-focused No Wrong Door model, staff members at organizations that serve older adults and people with disabilities would receive training and tools to streamline the customer’s access to transportation resources. Potential strategies include developing a centralized repository of transportation service information, training providers to perform “warm hand-offs” when connecting customers to new organizations, simplified and standardized application processes, and securely shared customer

profiles and eligibility information. The accessDC study team recommends that DDOT and its partners investigate opportunities to partner with the No Wrong Door system currently in development for Long Term Services and Supports in the District.

Accessible Trip Planning

Throughout the accessDC study, older adults and people with disabilities expressed a desire to have increased access to the District's fixed-route public transportation network. Accessible trip planning is an emerging strategy that enables customers to plan a public transit trip based on their travel preferences and accommodation requirements. An accessible trip planner would enable residents to determine when public transportation is a viable mobility option for a given trip, and take some of the uncertainty out of using Metrorail, Metrobus, and other services. The District is in a good position to develop a robust accessible trip planner, as local agencies and organizations have already produced comprehensive data sets on bus stop accessibility, sidewalk accessibility, and public transit schedules. The accessDC study team recommends that DDOT issue a Request for Information to identify potential accessible trip planning strategies, and choose to either integrate accessible trip planning in existing trip planners, develop a new accessible trip planner, or incorporate existing datasets into trip planners developed by third parties.

Advanced Trip Booking

Advanced trip booking platform integrate service and eligibility information for a variety of transit options with direct links to trip booking software packages. The platforms enable customers to understand their transportation options overall, identify a service that works for a specific trip, and then, if applicable, directly book or reserve a trip on that service. The study team ultimately did not recommend that DDOT and its partners pursue an advanced trip booking platform in the context of the accessDC study due to the following factors:

- The accessDC study focused only on services funded by and operating within the District of Columbia. Advanced trip booking platforms are most successful when implemented across broader regions.
- The accessDC study team determined that they did not have access to enough data to determine whether an accessible trip planner would create a demand imbalance for certain District transportation providers.
- District residents currently have access to several online trip booking options for specific providers, such as the MetroAccess online reservation portal, thus reducing the potential benefits of an advanced booking option.

The accessDC study team recommends that DDOT and its partners conduct a further study in coordination with regional partners to determine whether an advanced booking system would provide substantial benefits to District residents.

1. INTRODUCTION

Over 117,000 District of Columbia residents are over the age of 65 or have a disability¹, representing around 18.5 percent of the District's total population (Figure 3). District government provides a range of transportation services and programs designed to enhance the mobility of older adults and people with disabilities. Many District residents rely on these services and programs to access health care, social pursuits, and economic opportunities. As of FY 2016, the District spends nearly \$40 million dollars annually to support paratransit and human services transportation programs, such as MetroAccess, TransportDC, and the Seabury Connector. The District also allocates an additional \$10 million per year to support the Medicaid transportation program, which serves residents with low incomes, including many older adults and people with disabilities. While these significant investments strongly benefit District residents, there continue to be service gaps, as well as information gaps, that restrict the mobility of some older adults and people with disabilities.

Figure 3 | District Population with a Disability and Over Age 65

Category	Total	Percent
Total DC Population*	636,610	100%
Total Population with a Disability	71,316	11.2%
Total Population 65 and over	70,891	11.1%
Population 65 and over with a Disability	24,550	3.9%
Total Population with a Disability or 65 and over	117,657	18.5%

*Civilian Non-Institutionalized

Source: U.S. Census Bureau, 2011-15 American Community Survey 5-Year Estimates²

The accessDC study focused on identifying strategies to improve older adults and people with disabilities' access to District transportation services and programs. The accessDC study team analyzed how District residents learn about available transportation options, which programs and services residents currently use or would like to use, and what barriers residents face while traveling around the District. This information informed the development of study recommendations designed to enhance the quality and distribution of information about available transportation options, as well as work to close service gaps that restrict the mobility of District residents. The study team placed a specific emphasis on ensuring recommended strategies enable older adults and people with

¹ The Americans with Disabilities Act of 1990 defines "disability" as a physical or mental impairment that substantially limits one or more of the major life activities of such individual. Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 §§ 35.108 (a) (1).

² The ACS questionnaires cover six disability types: hearing difficulty, vision difficulty, cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty; *Source:* <https://www.census.gov/topics/health/disability/guidance/data-collection-ac.html>. It should be noted that not all persons who meet this definition of having a disability face transportation challenges, and that there may be others not included within the definition who may face transportation challenges.

disabilities to access transportation by whatever means they feel most comfortable with, including in person, by phone, and via smartphones and the internet.

STUDY OVERVIEW

The accessDC study commenced in October 2016 and was completed in July 2017. The District Department of Transportation (DDOT) received funding for the study through an inclusive coordinated transportation planning grant from the Administration for Community Living (ACL). The grant was managed in partnership with the Federal Transit Administration (FTA) and administered by the Community Transportation Association of America (CTAA). DDOT commissioned Nelson\Nygaard Consulting Associates to support the accessDC study, along with sub consultants GridWorks and Nspiregreen LLC.

The accessDC study was completed in four phases (Figure 4). At the outset of the study, DDOT formed a Project Advisory Committee (PAC) consisting of community members that rely on transportation services that serve older adults and people with disabilities, as well as agency partners that provide those services. The project began with the first PAC meeting, as well as an Open Mic Session where community members voiced their experiences using transportation in the District. After the kick-off, the study team analyzed data, interviewed stakeholders, and administered a customer survey. Information from this process was presented as an interim Existing Conditions Technical Memorandum. The study team used findings from the existing conditions analysis to develop initial recommendations, which were presented to PAC members and the public at a second Open Mic Session. The study team then developed draft and final recommendations through an iterative process with PAC members, stakeholders, and agency staff.

Figure 4 | accessDC study Timeline



REPORT ORGANIZATION

The accessDC study Final Report is organized into the following sections, presented chronologically based on the study process:

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- **Existing Conditions Overview:** A summary of transportation services and programs available to older adults and people with disabilities in the District, as well as review of

transportation linkages that provide access to information about available services and programs.

- **Stakeholder Collaboration:** An outline of stakeholder participation strategies and a summary of public input.
- **Opportunities and Challenges:** Findings from the existing conditions analysis and the stakeholder collaboration process, synthesized into opportunity and challenge statements.
- **accessDC Study Recommendations**
 - **General Coordination Recommendations:** Strategies to increase coordination between District agencies and organizations providing transportation services, as well as provide a platform to support accessDC study recommendations.
 - **Transportation Service and Program Improvements:** Recommendations for small and medium scale improvements to existing District transportation services and programs.
 - **Layered Improvement Strategies:** Recommendations for large-scale investments designed to comprehensively enhance transportation access for people with disabilities and older adults.



2. EXISTING CONDITIONS OVERVIEW

In 2014, the National Capital Regional Transportation Planning Board (TPB) identified over forty transportation services available to older adults and persons with disabilities in the District.³ The accessDC study primarily focused on the transportation services funded by the District of Columbia, as well as the transportation linkages that customers within the District use to obtain information about those services. The accessDC study team reviewed these programs and services— including interviewing provider staff, collecting feedback from stakeholders, and administering a customer survey. This chapter contains an overview of District transportation options. The full existing conditions report is included in *Appendix A*.

TRANSPORTATION SERVICES AND PROGRAMS

Older adults and people with disabilities in the District of Columbia rely on both general public fixed-route transportation services and specialized transportation options and programs (Figure 5). There are six categories of transportation services and programs available to District residents:

Fixed-Route Public Transportation: WMATA and DDOT are the primary fixed-route public transportation providers in the District. Both agencies have placed a specific focus on serving customers with disabilities, including 100 percent ADA-compliant rail stations and transit vehicles. Discounted transit fares are available for both older adults and people with disabilities.

ADA Paratransit Service: WMATA MetroAccess provides complementary ADA paratransit for eligible people with disabilities within a ¾-mile radius of all Metrorail and Metrobus services in the District and neighboring jurisdictions in Virginia and Maryland. All of the District of Columbia lies within ¾-miles of Metrorail and Metrobus services.

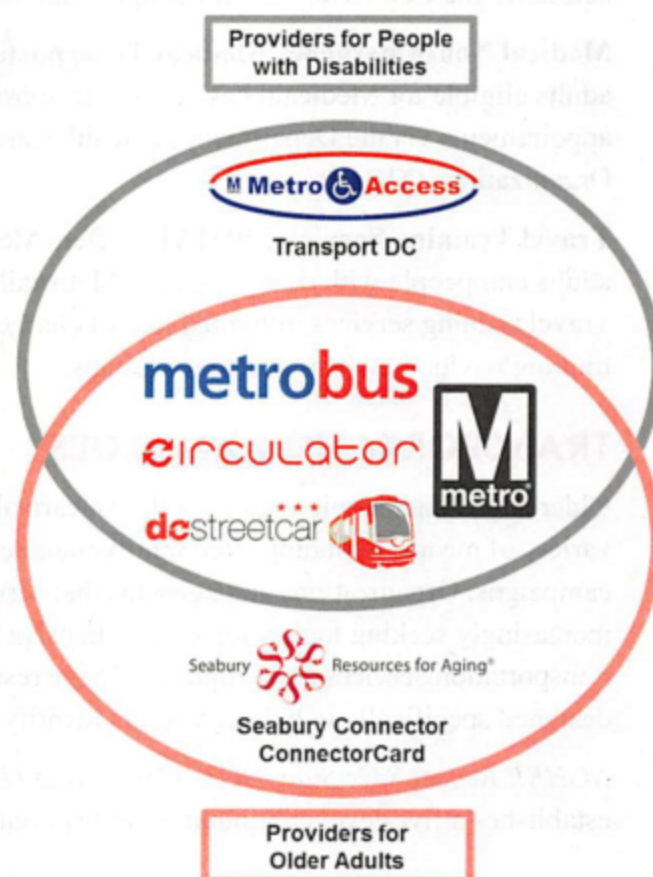


Figure 5 | Primary Transportation Services and Programs by Customer Demographic

³ "Update to the Coordinated Human Service Transportation Plan for the National Capital Region," National Capital Region Transportation Planning Board, November 2014.

Alternative Services for MetroAccess Customers: MetroAccess customers are eligible for TransportDC, a Department of For-Hire Vehicles (DFHV) program that provides subsidized taxi service. Taxi companies providing TransportDC service operate a mix of standard and wheelchair-accessible taxicabs. MetroAccess customers can travel to any destination before the 15th day of each month; due to funding limitations, customers can only use the service to travel to and from pre-approved employment and medical destinations after the 15th.

Senior Transportation Services and Subsidy Programs: The Seabury Connector operates senior transportation in the District, providing older adults (age 60 and older) access to medical appointments and human and social services. The Seabury ConnectorCard is a subsidized debit card that older adults can use to pay for many District transportation options. The DC Office on Aging (DCOA), the sponsor of both programs, currently contracts operations to Seabury Resources for Aging. Seabury also recently received a federal grant to provide a transportation subsidy program similar to the ConnectorCard for people with disabilities ages 18 to 59.

Medical Non-Emergency Medical Transportation (NEMT): People with disabilities and older adults eligible for Medicaid have access to subsidized transportation services to health care appointments via the Department of Health Care Finance (DHCF) and the four Managed Care Organizations (MCOs).

Travel Training Services: WMATA offers MetroReady travel training services that help older adults and people with disabilities use Metrorail and Metrobus services for their transportation needs. Travel training services, provided free of charge, include one-on-one training and group training/navigational assistance for groups.

TRANSPORTATION LINKAGES

Older adults and people with disabilities learn about transportation services and programs through a variety of means, including from family members, friends, social service providers, and marketing campaigns. Organizations and agencies that serve older adults and people with disabilities are increasingly seeking to develop comprehensive resources for accessing information about transportation services and programs. These resources—known as transportation linkages—are designed specifically to help customers identify and use the mobility options that work best for them.

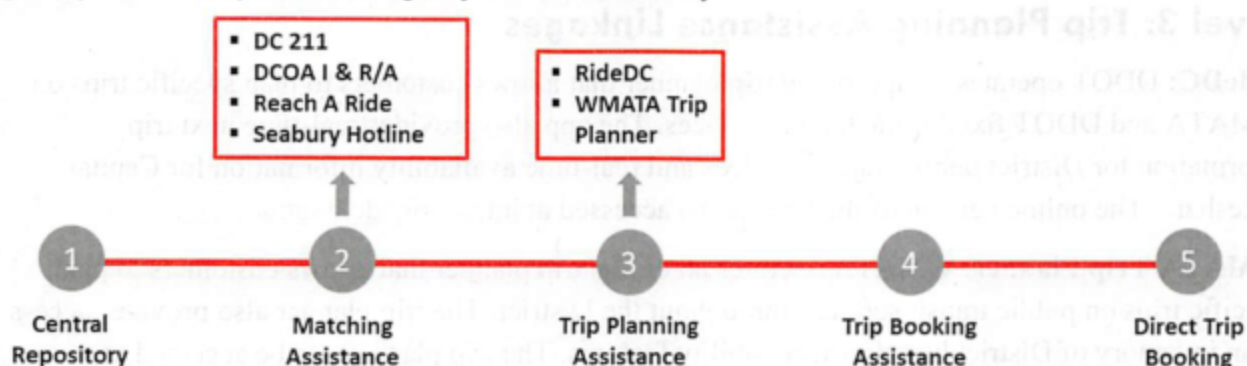
NCHRP Report 832: State DOTs Connecting Users and Riders for Specialized Transportation establishes a five-level continuum of transportation linkage functionality⁴. The continuum provides a

⁴ <http://www.trb.org/Main/Blurbs/174327.aspx>

The National Cooperative Highway Research Program (NCHRP) is a forum for coordinated and collaborative research, which addresses issues integral to the state Departments of Transportation (DOTs) and transportation professionals at all levels of government and the private sector. The NCHRP is administered by Transportation Research Board (TRB) of the National Academies of Sciences, Engineering and Medicine. NCHRP Reports are the main product of the forum's research projects and are often written as guidebooks or manuals that provide practical, ready-to-implement solutions to pressing problems facing the industry. Research projects are conducted by contractors with oversight provided by volunteer panels of expert stakeholders.

resource for assessing the design and functionality of transportation linkages currently operating in the District. Level 1 linkages feature a central repository organized as a static hard copy or online transportation service and program directory. As linkages advance higher in the continuum, they begin to provide additional resources for narrowing down transportation options, as well as trip planning or trip booking functionality. A full description of each linkage functionality level is available in the full existing conditions technical memorandum.

Figure 6 | District Transportation Linkages by Level of Functionality



There are six primary transportation linkages currently accessible to District residents (Figure 6). Four of these linkages provide *Level 2 - Matching Assistance* functionality, which allow customers to narrow down their potential mobility options by searching an online repository or calling a telephone hotline. Two linkages provide *Level 3 - Trip Planning Assistance* functionality, which allow customers to use an online system or call a telephone hotline to get directions on how to make a particular trip. Several Level 2 linkages in the District also utilize online trip planners to provide Level 3 assistance to District residents over the phone.

Level 2: Matching Assistance Linkages

211 Answers, Please!: The Department of Human Services (DHS) operates the District 211 program, known as 211 Answers, Please!. DHS maintains a wide-ranging repository of services and resources available to District residents, including information on transportation options. Customers can access 211 resources via telephone hotline (202-671-4200), or by searching the repository via an online portal at <https://answersplease.dc.gov/>.

DCOA Information & Referral/Assistance: DCOA operates the Information & Referral/Assistance hotline (DCOA I & R/A, 202-724-5626 or Ask.ADRC@dc.gov), which provides older adults, as well as their families and caregivers, referrals to services and programs throughout the District. DCOA I & R/A maintains a list of specialized transportation services and programs, and often provides transportation service information in the course of making non-transportation related referrals.

Reach A Ride: The Metropolitan Washington Council of Governments (MWCOC) maintains a specialized transportation services repository focused on the District and surrounding jurisdictions in Virginia and Maryland. The online repository at <http://www.reacharide.org/> includes a robust search function that allows customers to narrow down mobility options based on their needs. Customers can

also call a telephone hotline (855-732-2427) operated by MWCOG, where a representative can provide a guided search of the repository.

Seabury Information and Referral Hotline: Seabury Resources operates a telephone hotline (202-715-7649) that connects older adults to a wide variety of resources and programs in the District. While the hotline is not specifically tailored for accessing transportation resources, Seabury representatives maintain working knowledge of District mobility options.

Level 3: Trip Planning Assistance Linkages

RideDC: DDOT operates an app-based trip planner that allows customers to plan specific trips on WMATA and DDOT fixed-route transit services. The app also provides real-time next trip information for District public transit services and real-time availability information for Capital Bikeshare. The online version of the app can be accessed at <https://ridedc.ddot.dc.gov/>.

WMATA Trip Planner: WMATA operates an online trip planner that allows customers to plan specific trips on public transit services throughout the District. The trip planner also provides access to an inventory of District bus stop accessibility features. The trip planner can be accessed at <https://www.wmata.com/schedules/trip-planner/>.

3. STAKEHOLDER COLLABORATION

The accessDC study was funded through an inclusive coordinated transportation planning grant provided by the Administration for Community Living (ACL) and administered by the Community Transportation Association of America (CTAA). CTAA states that the grant program mission is to “demonstrate the value that inclusive processes can bring to transportation efforts” and to “adopt proven, sustainable, and replicable models that include participation of people with disabilities and older adults in the design and implementation of coordinated transportation systems that are responsive to their needs.”⁵

In keeping with the spirit of the grant program’s mission, the accessDC study team strove to engage and collaborate with older adults and people with disabilities throughout the study process. Despite a relatively limited study budget, the project team held numerous meetings and incorporated a variety of outreach strategies to increase the involvement of District residents. At the outset of the study, DDOT formed a Project Advisory Committee (PAC) consisting of community members that rely on transportation services that serve older adults and people with disabilities, as well as agency partners that provide these services (Figure 7). The PAC met four times at key study milestones, allowing for an iterative process that balanced the experiences and viewpoints of customers, agency stakeholders, and the study team. The study team also collected direct feedback from the public at two “Open Mic Sessions” and through a customer survey with responses received from approximately 250 District residents.

Figure 7 | Project Advisory Committee (PAC) Members

Stakeholder Group	PAC Members
Older Adults	Joyce Forrest; Janet Parker
People with Disabilities	Dennis Butler; Sandra Faulk; Kamilah Martin-Proctor
DC Office on Aging (DCOA)	Brian Footer and Garret King
Department of Health Care Finance (DHCF)	Antonio Lacey
Department of For-Hire Vehicles (DFHV)	Karl Muhammad
Washington Metropolitan Area Transit Authority (WMATA)	Christiaan Blake

In addition to the public meetings and customer survey, the accessDC study team utilized the following outreach tools and engagement techniques:

- **Project Website:** DDOT created and hosted an accessDC study website throughout the project, which included a project overview, meeting announcements, and project materials

⁵ “Transportation Planning 4 All Demonstration Projects,” Community Transportation Association of America, accessed June 2017, <http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=3265>.

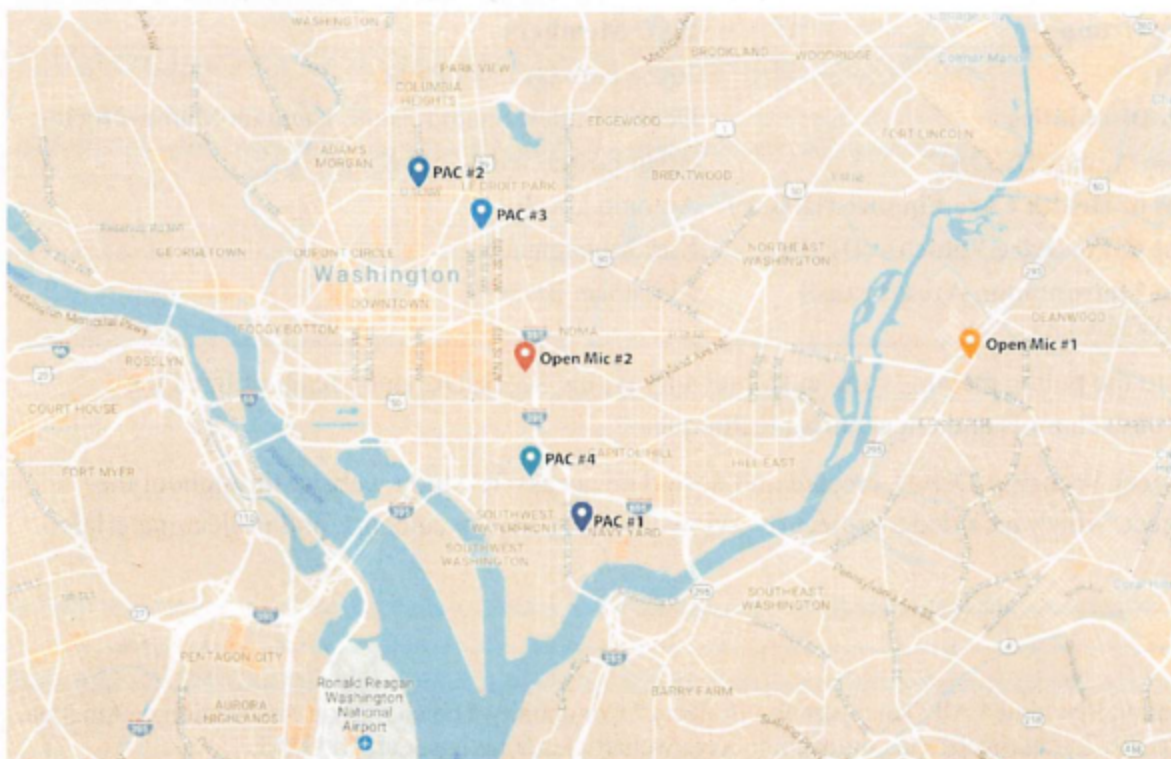
such as meeting notes and interim deliverables. The project website is located at <https://ddot.dc.gov/page/accessdc-study>.

- **Electronic Information Blasts:** The study team created a project contact list that included stakeholders and community members that expressed interest in the study. Over the course of the study, the study team sent emails to the contact list that detailed upcoming events and announced new documents and information posted to the project website.
- **Meeting Flyers:** The team distributed flyers at community centers, senior centers, and other key locations to inform residents about the Open Mic Sessions.
- **Press Releases:** DDOT issued press releases to notify the public and interested news outlets about the study and the Open Mic Sessions.

PAC MEETINGS AND OPEN MIC SESSIONS

The accessDC study team organized PAC meetings and Open Mic Sessions at four key milestones: the project kick-off, after the completion of the existing conditions analysis, after the development of initial strategies and recommendations, and before submission of the study final report. PAC meetings and Open Mic Sessions were held at transit-accessible locations throughout the District (Figure 8). All PAC meetings were open to the public, and the study team encouraged PAC meeting attendees to participate in all discussions. Conversations during each of the six meetings provided valuable insights for the project team, leading to substantive modifications to the study process and the incorporation of new or modified study recommendations. An overview highlighting the content presented at each PAC meeting and Open Mic Session, as well as a discussion of key comments and conversations from each meeting, is provided below. Full meeting notes are included as *Appendix B*.

Figure 8 | accessDC Open Mic and PAC Meeting Locations



Project Kick-Off

The project kick-off included both the first PAC Meeting and the first Open Mic Session. The goals of these meetings were to introduce the public to the study, gain insight into transportation challenges faced by older adults and people with disabilities in the District, and make any necessary changes to the study approach and implementation process.

PAC Meeting #1

The first PAC meeting was held on November 1, 2016 at the DDOT headquarters, 55 M Street SE, at 1:00pm. The meeting began with a presentation by the study team, which included an overview of the study goals, scope, and schedule, as well as a basic outline of transportation services and linkages available in the District. PAC members and the study team also discussed the role of the PAC and exchanged contact information. Twenty-one people attended the meeting, including eight members of the project team and five PAC members.

During the first PAC meeting, PAC members and residents made several suggestions that guided the study moving forward. They noted that connectivity between services is a major issue for District residents, and encouraged the study team to focus on strategies that enable residents to use multiple services. Commenters highlighted the need to expand the definition of accessibility to include the accessibility of information (i.e. having access to information by phone, rather than just the internet) and accessibility between transportation options and final destinations (i.e. sidewalk and bus stop accessibility). One attendee also encouraged the study team to document “lessons learned” about public outreach during the accessDC study, in order to improve outreach to older adults and people with disabilities in future studies.

The study team incorporated each of the above recommendations into the accessDC study process. The existing conditions analysis and customer survey included a focus on barriers that make customers unable to use multiple transportation options. All recommendations in the report were designed to be accessible to District residents through a variety of means, rather than just on the internet or by using a smartphone. A specific focus was placed on utilizing sidewalk and bus stop accessibility information to improve transportation access. The study team also decided to include a detailed accounting of the outreach process in the final report, including a lessons learned section.

Open Mic Session #1

The first Open Mic Session was held on November 16, 2016 at the Department of Employment Services



Figure 9 | Attendees at 1st Open Mic Session

Community Room, 4058 Minnesota Avenue NE. The study team gave two presentations during the meeting, at 4:30 pm and at 6:30 pm. The meeting length and presentation times were designed to allow both residents who wanted to be home before dark and residents with 9-to-5 work schedules to attend the meeting and hear the presentation.

Similar to the first PAC meeting, the presentation outlined study goals, scope, and schedule, and provided an outline of transportation services and linkages in the District. After each presentation, the study team facilitated an open mic period, where residents offered comments about their experiences using District transportation options. Overall, 31 people attended the first Open Mic Session and 12 attendees made public statements. Several other attendees offered additional insights or asked questions directly to study team staff.

During the open mic session, several attendees made recommendations to improve the accessDC public outreach process, especially with respect to outreach to older adults. Suggestions included holding meetings during the day, making sure that paper surveys in Spanish were made available, and making attempts to reach older adults that typically are not reached by other public outreach efforts in the District. Several attendees also recommended that accessDC meetings be held within the first 15 days of the month, enabling them to use TransportDC to get to the meetings. The accessDC study team attempted to address each of these suggestions throughout the remainder of the study.

Existing Conditions Analysis

The study team reviewed the existing conditions analysis at PAC Meeting #2, and provided a brief overview of existing conditions at the second Open Mic Session.

PAC Meeting #2

The second PAC meeting was held on February 1, 2016 in the second-floor community room at the Frank D. Reeves Center, 2000 14th Street NW, at 2:00 pm. During this meeting, the study team presented findings for the existing conditions analysis and customer survey. The study team asked PAC members to provide feedback on these findings and identify any potential issues missing from the analysis. The team also provided an introduction to the concepts that would help guide the development of the initial recommendations. Overall, 21 people attended the meeting, including five PAC members and eight members of the project team.

During this meeting, attendees expressed interest in increasing connectivity between service providers, particularly in relation to trip booking. One attendee recommended that representatives from one provider have the ability to book trips on another. For example, a customer that calls Seabury could get a reservation on a different service if the Seabury Connector was unable to serve their trip. Another attendee noted that this system should allow customers to create a profile, so that representatives would already know their needs and preferences before making an inquiry about a specific trip. This input, along with similar comments at other meetings, influenced the development of the No Wrong Door layered approach described in Chapter 7.

Initial Strategies and Recommendations

The study team introduced the initial recommended strategies at the second Open Mic Session and third PAC meeting. The goal of both meetings was to gain feedback on the initial recommendations and identify any potential recommendations that the study team may have overlooked. Comments at both meetings guided the refinement of the initial recommendations during the next study phase.

Open Mic Session #2

The second Open Mic Session was held on March 11, 2017 in the Old Council Chambers at One Judiciary Square, 441 4th Street NW, at 10:00 am. The study team gave a presentation at the start of the meeting. This presentation included a review of the existing conditions analysis, as well as details of the initial recommended strategies. After the presentation, members of the public were invited to give comments in an open mic style session. Overall, 22 people attended the meeting and 12 provided comments.

During the second Open Mic, multiple attendees had questions about the customer survey, specifically focusing on the sample size. The study team added clarifications in future presentations and in the existing conditions analysis to address the questions. Several attendees also reemphasized the need to have multiple options for accessing transportation services, especially for older adults who do not use the internet or have smartphones. Other attendees noted that smartphones are a valuable resource that can greatly improve access for people with certain disabilities. An attendee also outlined the complicated Seabury ConnectorCard application process, leading to a project recommendation that this application process be streamlined.

PAC Meeting #3

The third PAC Meeting was held on May 3, 2017 in the meeting room at the Watha T. Daniel Shaw Neighborhood Library, 1630 7th Street NW, at 10:00 am. During this meeting, the study team presented an overview of the initial recommendations. Throughout the presentation, PAC members and members of the public provided insights and suggestions on the recommendations. A total of 21 people, including six PAC members and five study team representatives, attended the meeting.

During the third PAC meeting, attendees had an engaging and wide-ranging discussion about how to frame technology and internet-based solutions in the context of planning for older adults and people with disabilities. Similar to previous meetings, several attendees expressed concerns that the study team was too heavily focusing on solutions that require internet access or a smartphone. The study team noted that while many proposed recommendations were technology-based, each was designed to increase access to transportation information via all methods, including by phone and in-person. Attendees suggested that the study team initially frame discussions by noting the difference between backend technology solutions and customer-facing access points. In response, the study team specifically highlighted how technology expands access to transportation information via telephone and in-person consultations throughout the report and at the final presentation.

Final Report

The study team held the final PAC meeting while drafting the final recommendations and report.

PAC Meeting #4

The fourth and final PAC meeting was held on June 8, 2017, in a meeting room at the DC Department on Disability Services, 250 E Street, SW, at 10:00 am. The study team presented the draft recommendations, and solicited feedback from both PAC members and members of the public in attendance. A total of 22 people attended the meeting, including five members of the study team.

Throughout the presentation, meeting attendees provided specific feedback on the draft final recommendations. For example, several community members noted challenges with existing travel training programs provided by WMATA and questioned why the accessDC study recommended additional travel training options. The study team and PAC members clarified that accessDC travel training recommendations focused on community-building efforts, and included training on a much wider range of services and transportation linkages than current options. As a result of this conversation, several modifications were made to the final report to highlight these unique elements of the travel training recommendations. PAC members and other agency representatives also discussed initial implementation steps, including potential funding opportunities made available by MWCOG.

CUSTOMER SURVEY

The study team administered a customer survey in winter 2016. The survey was designed to help identify how people with disabilities and older adults learn about and access transportation services and programs in the District. The survey was available online in both English and Spanish, and DDOT staff also distributed paper surveys at senior centers. Approximately 250 District residents responded to the survey. Key survey findings included:

- Metrorail and Metrobus are widely used by people with disabilities and older adults as a primary transportation option. Over half of older adults without disabilities prefer using fixed-route public transportation to all other services.
- Older adults with disabilities prefer a mix of transportation options, including Metrorail and Metrobus, MetroAccess, and TransportDC. People with disabilities under 60 appear to overwhelmingly prefer TransportDC compared to MetroAccess and all other mobility services, potentially because they are more likely to be commuting to work or school.
- Older adults and people with disabilities have high awareness of transportation services they do not use. Respondents had wide-ranging reasons for why they chose not to use certain services, including more convenient alternatives, the inability of services to accommodate their needs, and a lack of understanding of how some services work.
- Older adults and people with disabilities most commonly learn of transportation options from family members, friends, or social service providers.

- The WMATA Trip Planner is the most widely utilized transportation linkage among survey respondents. Apart from the Seabury Information and Referral Hotline, no other transportation linkage has been utilized by more than 10 percent of respondents.
- About 90 percent of survey respondents have access to a cell phone, and around 40 percent regularly use their cell phone to look up information.

The Existing Conditions Technical Memorandum (*Appendix A*) includes full survey results and analysis.

LESSONS LEARNED

Throughout the accessDC study, the study team paid attention to responding to feedback from PAC members and the public not only about study content, but also about the stakeholder collaboration process itself. In many cases, the study team was able to change and improve study processes based on stakeholder feedback. In other cases, the limited project budget and scope constrained the study team's ability to address specific stakeholder suggestions, but provided valuable insights for future inclusive study processes. Key lessons learned during the accessDC study are discussed below.

Meeting Access

Older adults and people with disabilities face unique mobility challenges that affect their ability to participate in public meeting processes. During the accessDC study, participants made numerous suggestions about the location and timing of study meetings. The study team was able to adapt the stakeholder collaboration process to address many of these suggestions, while others could not be fully addressed due to the limited project budget. Recommendations for future studies include:

- Work with an initial stakeholder group to determine specific transportation challenges that may limit project participation if not properly addressed. During the accessDC study, for example, the study team learned that residents with disabilities would be more easily able to attend meetings within the first 15 days of each month – when MetroAccess customers can use TransportDC for general purpose trips. After identifying this challenge, the team adjusted the project schedule to hold all meetings before the 15th day of each month.
- Disperse meetings across the study area, and hold meetings in locations where older adults and people with disabilities live or congregate. accessDC study meetings were held in transit-accessible locations throughout the District, with the goal of reaching older adults and people with disabilities who may be hesitant or unable to travel longer distances for meetings. The study team recommends that future projects hold meetings at Senior Villages and disability resource centers, especially when project budgets enable study teams to give the same presentations at multiple sites.
- Hold meetings during the day, or hold longer meetings with multiple presentations in order to enable participants to be home before dark. Many older adults and people with disabilities prefer not to travel after dark, while others work traditional schedules that prohibit them from attending daytime meetings. The accessDC study team held most meetings during the day in response to stakeholder recommendations. With additional budget, the team would likely

have held both daytime and nighttime meetings, in order to reach residents with different schedules, abilities, and preferences.

Meeting Format

The accessDC study team attempted to design meetings to account for the wide range of ways that older adults and people with disabilities prefer to express their ideas and opinions. The team also made context specific changes to meeting structure to adjust for the realities of the stakeholder collaboration process. Meeting design recommendations for future studies include:

- **Provide both verbal and written feedback opportunities.** Older adults and people with disabilities have varying preferences and abilities to give verbal or written feedback. The accessDC study team attempted to provide opportunities for stakeholders to provide both verbal and written feedback at study meetings. At the Open Mic Sessions, for example, participants could make public statements at a podium or roving microphone, or provide written or verbal feedback for a study team member to read aloud to attendees.
- **Encourage conversation between “official” study participants and community members, when appropriate.** The accessDC study had an official PAC that included representatives from various District agencies and the community. PAC meetings, however, were publicized and open to all District residents. As many of the meetings were relatively small, the study team encouraged both PAC members and members of the public to ask questions and engage in the conversation. This context-sensitive adjustment led to engaging conversations and new connections between PAC members, advocates, and other stakeholders.

4. OPPORTUNITIES AND CHALLENGES

The first phase of the accessDC study focused on existing conditions. During this process, the study team interviewed transportation service and linkage providers, held stakeholder meetings, and analyzed the results of the customer survey. The study team then synthesized their findings into a series of opportunity and challenge statements. These statements, outlined below, greatly informed the development of the initial accessDC recommendations.

TRANSPORTATION SERVICES

Most older adults and people with disabilities can make their daily trips using one of four major specialized transportation services and programs available in the District

Apart from private NEMT providers and a variety of small, specialized transportation services, there are four major specialized transportation services and programs in the District. MetroAccess and TransportDC both serve people with disabilities, including older adults with disabilities.

MetroAccess serves all trip types, while TransportDC has some trip eligibility limitations during the second half of each month. TransportDC also only serves trips within the geographic bounds of the District. In addition, a person needing an accessible taxicab can plan a trip through the DC Taxi app, although they would have to pay the normal fare. A customer cannot request a TransportDC taxicab using the DC Taxi app.

Seabury Connector provides a wide range of regularly scheduled medical and social service trips for older adults (including those who require an accessible vehicle), and serves a limited number of shopping and other general purpose trips. Older adults also have access to up to \$100 of subsidized transportation funds through the ConnectorCard program that can be used on many public and private mobility options for all trips throughout the District. While some customers note that the quality of these services could be improved, older adults and people with disabilities generally have access to a transportation option that meets their needs for most, if not all, trips.

All major District fixed-route public transportation services are ADA-compliant, and are popular with many older adults and people with disabilities

Unlike many rail networks in the United States, Metrorail has 100 percent ADA-compliant stations and vehicles. All stations have elevators that provide access to all platforms, allowing people who rely on elevators to use the Metrorail network without needing to make complex and time-consuming deviations to avoid inaccessible stations or services.

Metrobus uses ADA-compliant vehicles, and is moving towards a low-floor fleet that should reduce loading times for people in wheelchairs or who have difficulty climbing stairs. High overall accessibility on District public transportation networks has made the services popular with older adults and people with disabilities, with nearly 60 percent of survey respondents noting that they regularly use Metrorail or Metrobus services. This utilization rate suggests that if presented with the

opportunity, many older adults and people with disabilities would choose to ride fixed-route public transportation over other options. Customers have noted anecdotally, however, that some bus drivers may not always stop for customers in wheelchairs, and some do not manually announce stops, per the ADA, if the automated stop announcing system is not operational.

The ConnectorCard makes the cost of transportation more affordable for many older adults, but the program is currently at capacity

The ConnectorCard provides up to \$100 each month at a cost of \$24 to \$76 to the customer. For many older adults with low incomes in the District, the ConnectorCard could significantly reduce the cost of using MetroAccess, TransportDC, fixed-route public transportation, and private transportation services. However, current ConnectorCard funding can support just 250 District residents, and the program is now at capacity.

An integrated fare payment system across services is unavailable

MetroAccess customers can pre-pay for trips using the online EZ-Pay program. Funds can be deposited into an EZ-Pay account using a credit or debit card, including a ConnectorCard. EZ-Pay funds, however, cannot be used to pay for trips through the TransportDC program. Fares for TransportDC trips must be paid directly to the taxi operator using cash or a credit or debit card. MetroAccess customers who rely on the EZ-Pay program to pay for their trips may therefore have difficulty using the TransportDC program.

TRANSPORTATION LINKAGES

Reach A Ride provides a comprehensive repository of specialized transportation options in the District and surrounding counties in Maryland and Virginia

During the initial development of the Reach A Ride program, MWCOG created a comprehensive repository of specialized transportation options in metropolitan DC. MWCOG continues to update the repository regularly, ensuring that customers have access to reliable information. Reach A Ride includes a searchable online repository that can be used by customers directly, as well as by MWCOG representatives and staff from other social service programs. The Reach A Ride repository could serve as the base for other District linkages or a new linkage service developed for the District.

Multiple service providers offer information and referral hotlines that older adults and people with disabilities use to access information about transportation services

Seabury Resources, DCOA's Information & Referral/Assistance hotline, MWCOG, and DHS all provide information and referral services to older adults and people with disabilities. While MWCOG's Reach A Ride is specifically tailored to connect customers to transportation resources, the remaining three hotlines connect customers to a wide variety of services and programs, including transportation options. Staff members at all four agencies and organizations are trained to connect District residents with services, and could potentially help customers access and use new linkage services. However, only operators at the 211 Answers, please! service are specifically trained to

follow up with customers as to whether they were able to complete a trip successfully, a key process for determining whether linkage services provide useful information.

WMATA and DDOT provide real-time arrival information for all buses and trains

Both WMATA and DDOT have installed equipment to provide real-time arrival information for all fixed-route public transportation services in the District. Both agencies have developed their own online portals or smartphone applications that provide real-time arrival information, and also provide an application programming interface (API) for third-party developers. These APIs reduce barriers for adding real-time information to new transportation linkages that provide trip planning assistance.

WMATA has a robust bus stop accessibility inventory, but is not fully integrated with its trip planner

WMATA has developed an inventory that includes accessibility information for bus stops and related path of travel information (e.g., on curb cuts, walk signals, etc.). The inventory also includes information about stop location and amenities that may be helpful for orienting customers. However, this accessibility and amenity information is not directly integrated with the WMATA Trip Planner search function. Customers cannot, for example, request a trip itinerary without stops located on obstructed sidewalks. The bus stop inventory does, however, present a unique opportunity to develop a fixed-route public transportation trip planning option directly targeted to older adults and people with disabilities.

The DC Taxi app allows customers to hail a wheelchair accessible taxi, but is not integrated with TransportDC

The DC Taxi app, developed by the Department of For-Hire Vehicles, allows District residents and visitors to hail and pay for taxi services using a smartphone. The app allows customers to request a wheelchair accessible taxi. The DC Taxi app, however, is not integrated with the TransportDC program. TransportDC customers may request a ride between 30 minutes to an hour in advance by calling a phone line linked to the dispatching lines for each participating taxi company. If a TransportDC customer requests a trip using the DC Taxi app, they must pay a full regular taxi fare without subsidy.

Both MetroAccess and Seabury Connector use the same Software Platform for reservations, scheduling, and dispatching

The most advanced transportation linkages allow customers to directly book a trip on participating services. This level of functionality generally requires a direct link to the software package each service uses for reservations, scheduling, and dispatching. Different transportation providers in a given region often use different software packages. To create a comprehensive linkage, each of these software packages have to be integrated, increasing costs and implementation timelines. In the District, however, both MetroAccess and the Seabury Connector use the same software platform for reservations, scheduling, and dispatching. Having a common software package across providers may reduce barriers for developing a linkage with direct booking functionality (which has been accomplished by JTA in Jacksonville and by PennDOT in Pennsylvania).

5. GENERAL COORDINATION RECOMMENDATIONS

In response to findings from the existing conditions analysis and stakeholder collaboration process, the accessDC study team developed recommendations designed to improve the mobility of older adults and people with disabilities in the District. These recommendations are grouped into three categories: General Coordination Recommendations; Transportation Service and Program Improvements; and Layered Improvement Strategies. It should be noted that funding measures would need to be identified and appropriated to implement any of these study recommendations.

The accessDC study team developed three strategies designed to increase coordination between DDOT and other District agencies that provide transportation services. These general coordination strategies will also help streamline the implementation of accessDC recommendations. They include:

- Facilitate Inter-Agency and Stakeholder Working Groups;
- Establish an Open Data and Open Source Software Policy; and
- Create a Centralized Information Data Repository.

Transportation Service and Program Improvement recommendations are detailed in Chapter 6. Chapter 6 includes an overview of the recommended Layered Improvement Strategies.

Facilitate Inter-Agency and Stakeholder Working Groups

The accessDC study recommends improvements to transportation services, programs, and linkages that are managed and operated by a wide range of District government agencies and organizations. Successful implementation of study recommendations requires ongoing collaboration between responsible agencies and organizations, as well as continued input from District residents. To ensure a streamlined collaborative process, DDOT should pursue accessDC study recommendations through the following three working groups: the Transportation Collective, the Commission on Aging, and the Multimodal Accessibility Advisory Council.

Transportation Collective

The Transportation Collective was a working group consisting of government agencies that operate transportation services in the District, including staff from DDOT, DCOA, DFHV, WMATA, and the DC Department of Parks and Recreation (DPR). The Transportation Collective's initial efforts focused on identifying overlap between District-funded transportation services, as well as opportunities for inter-agency collaboration strategies. The accessDC study was one outcome of this work, and several Transportation Collective members served on the accessDC PAC.

DDOT should encourage the reestablishment of the Transportation Collective, with a goal to meet four to six times each year to monitor the cost and quality of transportation services in the District. These meetings could serve as a point of departure for inter-agency efforts focused on implementing accessDC study recommendations. Maintaining regular meetings of the larger collective will also allow all agencies to monitor the status of accessDC projects and programs, and ensure continued collaboration to improve District transportation options for older adults and people with disabilities.

Commission on Aging and the Multimodal Accessibility Advisory Council

Projects and programs recommended by the accessDC study will be most successful if older adults and people with disabilities provide input throughout the implementation process. To streamline collaborative efforts, DDOT should seek regular input from advisory groups that include older adults, people with disabilities, and their advocates, including the existing Commission on Aging and the planned Multimodal Accessibility Advisory Council:

- The Commission on Aging (COA) includes 15 members, at least eight of whom are 60 years of age or older, who are appointed by the Mayor with the advice and consent of the Council of the District of Columbia. The Commission advises District government on issues regarding older adults. Several Commission members actively participated in the accessDC study process, including attending and providing input at study meetings.
- The Multimodal Accessibility Advisory Council (MAAC) was codified in 2016 and had its first meeting in February 2018. According to its establishing legislation, the MAAC will “serve as the advisory body to the Mayor, the Council, and District agencies on making local transit and public space in the District more accessible to persons with disabilities.”⁶ The MAAC includes the DDOT Equity and Inclusion Officer as the Director’s designee, the Office of Disability Rights (ODR), and the Office of Human Rights (OHR), as well as six Mayor-appointed residents who represent the disability advocacy community.

Establish an Open Data and Open Source Software Policy

District government agencies and organizations rely on a wide variety of software tools and datasets to provide transportation services and information to older adults and people with disabilities. Examples include the software platform currently used for MetroAccess and Seabury Connector operations, as well as public transit schedule information published in general transit feed specification (GTFS) format by WMATA and DDOT. While some of these tools and datasets are accessible to multiple agencies or even the general public, many are restricted by software licensing policies or other restrictions. These policies and restrictions limit how DDOT and its partners can collaborate to create higher quality transportation linkage services, and reduce opportunities for third-party software developers to create beneficial products for District residents.

⁶ <https://beta.code.dccouncil.us/dc/council/laws/21-124.html#§304>

Open data can be freely accessed and utilized by anyone. Many organizations have developed standards for specific types of open data. These standards allow government agencies and other organizations to create and use related datasets to develop software or distribute information. GTFS, for example, is an open data standard for fixed-route public transportation information. Transit agencies create GTFS datasets for their transit systems, and developers can then use the datasets to create trip planning software. In most cases, developers can freely use GTFS data without compensating the publishing agency. Many agencies and organizations that publish open data also create open source application programming interfaces (APIs), which allow developers to more easily create software programs that use an open dataset.

The accessDC study team recommends that DDOT and its partners publish all transportation data using standardized open data formats and rely on open source software when available. When procuring software, District agencies should establish a preference for open source software and require vendors to use open data standards when applicable. Contracts for non-open source software should expressly permit the development of APIs. In general, these policies will ensure that DDOT and its partners are able to leverage existing open source software and enable third-party developers to more easily create software that benefits District residents. For transportation specifically, these policies will streamline the development of linkage services that combine data or software capabilities provided by multiple District agencies.

Centralized Transportation Service Information Repository

A key finding from the accessDC existing conditions analysis was that several District agencies have simultaneously created and are maintaining repositories of transportation service information. This development has occurred in spite of the existence of the high-quality Reach A Ride database developed by MWCOG. Transportation linkage providers in the District devote significant staff time to maintaining transportation service information, and transportation service providers are frequently solicited for updated information.

The District and its partners should develop a centralized transportation service information repository for use by all District agencies and organizations that provide transportation service information to residents. This centralized repository will ensure that all residents have access to the highest quality transportation information, and reduce the staff time needed to keep that information up-to-date. Several accessDC recommendations, most notably the No Wrong Door layered improvement strategy, require a centralized transportation service information repository as part of the implementation process. Regardless of which agency pursues these recommendations, a transportation services information repository will provide significant benefits for District residents, agencies, and organizations.

The existing Reach A Ride database provides a potential platform for developing a new centralized repository, as MWCOG has established protocols for collecting and maintaining transportation service information. A key barrier that some agencies face to using the existing Reach A Ride database is that it does not contain information that is vital to serving specific constituent groups, or that the information is available but not easily searchable. DDOT, MWCOG, and the United Way—which manages the database for District 211 services—should establish a working group with

representatives from agencies and organizations that will be using the repository. This working group should identify all key information to be included in the repository, and design database functionalities that fit within existing workflows. Working group members should also design protocols for updating the database, including a centralized or distributed staffing plan and dedicated funding. Database design and protocols also should account for potential future use cases, such as the development of a regional one-call/one-click system with trip booking functionality.

6. TRANSPORTATION SERVICE AND PROGRAM IMPROVEMENTS

The accessDC study team developed small and medium scale strategies designed to improve existing District transportation services and programs. These recommendations focused on three areas:

- Mobility Management, Travel Training and Customer Outreach;
- Transportation Subsidy Programs and Alternative Services; and
- Short-term Layered Strategies Components.

This chapter details each recommendation, including an overview of benefits and challenges as well as the implementation timeline. It should be noted that the cost of implementation and funding mechanisms would need to be identified and appropriated to implement any of these study recommendations. Timelines noted below begin after funds become available for each recommendation.

MOBILITY MANAGEMENT, TRAVEL TRAINING, AND CUSTOMER OUTREACH

District residents have access to a wide range of transportation services and programs designed to meet differing mobility needs. Many older adults and people with disabilities understand how to use one or two transportation options, and are able to complete most trips using their preferred service or program. Other residents have difficulty making some basic trips, or want to understand how to use a new transportation option that may provide more flexibility or reduce travel times.

While several transportation linkages serve the District, there are few options that proactively lay out all of the transportation services and programs available for older adults and people with disabilities. The accessDC study team recommends that DDOT and its partners establish several mobility management programs to help residents more easily identify the transportation options that work best for them. These strategies include:

- Creating specialized transportation marketing materials;
- Establishing a Bus Buddies program;
- Providing on-site travel training; and
- Developing an on-site mobility manager and ambassador program.

Specialized Transportation Marketing Materials

Basic marketing materials can be an effective way of quickly providing high-quality transportation service information to older adults and people with disabilities. Study participants felt that DDOT should develop marketing materials highlighting both District transportation options and resources that assist residents in understanding which options work best for them. Many residents likely prefer

physical materials, such as a resource pamphlet or poster, which they can refer to when deciding which transportation option to use for a given trip. Service providers have also developed unique marketing materials, such as a reference placemat to distribute congregant meals or a takeaway card placed in a pharmacy bag.

In addition to independently producing marketing materials, DDOT could create templates for District agencies and organizations seeking to produce targeted marketing materials. Through DDOT's transportation demand management program (TDM), goDCgo, these templates could be published alongside updated transportation service information used for DDOT-distributed marketing materials. This service would allow partner agencies and organization to "cut and paste" their own marketing materials targeted to the transportation needs of a specific customer group, and then create and distribute the materials at their own expense.

The option of utilizing the goDCgo platform leverages a service already in use. It also allows materials to be kept up to date easily in an online platform, while providing methods for agencies, organizations and individuals to print physical materials.

Mobility Advice and Assistance Options

- Many older adults and people with disabilities prefer to learn about transportation options in person, rather than on the phone or via the internet. Many District residents already provide mobility management assistance informally to friends and colleagues. Additionally, WMATA currently provides public transit travel training through the MetroReady program, which primarily focuses on WMATA-operated bus and subway services. The study revealed an opportunity to further develop person-to-person assistance options that can address the stated desires.
- There is an opportunity to formalize personal mobility advice and assistance through the options discussed below. Development of these services would require significant input from the older adult and disability communities. To provide the best opportunity for involvement with the respective communities, the Multimodal Accessibility Advisory Council and the Commission on Aging would be good venues to discuss these options and determine when service delivery is best done by a public agency or by a non-profit focused on these types of services. The efforts could leverage existing staff resources at Aging and Disability Resource Centers and Senior Villages, many of which already provide transportation linkage assistance, reducing barriers for residents seeking in-person transportation to find the transportation options that work best for them.

Group Travel Training

DDOT should work with transportation providers, including WMATA, to expand group travel training to include other District transportation services, programs, and linkages. When possible, group travel training should be conducted directly at locations where older adults and people with disabilities congregate. These on-site travel training opportunities will expose more residents to different transportation options, as well as provide information about transportation linkages that will

enable residents to more independently determine which transportation option works best for a given trip.

Bus Buddies Program

Bus Buddies is a proposed volunteer program that would match a District resident who wants to learn how to use public transit with a resident who has experience using the bus or subway. The program would enable older adults and people with disabilities to use public transportation more frequently, and would have relatively low start-up and ongoing operating costs. Residents participating in the program could request general assistance in learning how to use public transit, or request that a volunteer accompany them on a specific trip. More specifically, Bus Buddies volunteers could help residents:

- Learn how to read a bus schedule and use the system map;
- Purchase and pay bus and subway fares, and understand whether they may qualify for a subsidized fare;
- Navigate a specific trip;
- Prepare for potential problems or confusing situations; and
- Learn how to contact transportation linkages for public transit trip planning assistance.

Mobility Manager and Ambassador Program

Study participants also felt that DDOT and its partners should develop mobility management training for staff at facilities that serve older adults and people with disabilities, such as Aging and Disability Resource Centers and Senior Villages. These training sessions would provide information about District transportation services and linkages, including client and trip eligibility criteria, potential subsidy options, and travel training opportunities. Trained staff would become a first-line transportation resource for their clients, with the ability to provide transportation information in the context of broader discussions about District services. Additionally, trained staff could assist clients in filling out applications and purchasing fares, and become a point of contact for distributing marketing materials and other transportation information.

Study participants also identified an opportunity to consider creating a formal mobility ambassador program that trains older adults and people with disabilities to assist others in identifying and using transportation options. Ambassador training could occur alongside other travel training services, creating a “snowball” effect as residents pass on their knowledge.

TRANSPORTATION SUBSIDY PROGRAMS AND ALTERNATIVE SERVICES

The District currently provides several programs that enable older adults and people with disabilities to use flexible transportation options at a low cost. Older adults are eligible for the ConnectorCard, which provides subsidized funds on a debit card that can be used for almost any transportation option. MetroAccess customers can participate in the TransportDC program, which provides a nearly on-demand service using taxis. Both programs encourage residents to use mobility options that

require a lower subsidy per trip, and both have become the preferred transportation programs for many District residents. The accessDC study team recommends that DDOT and its partners explore opportunities to expand or enhance transportation subsidy and alternative service programs, including:

- Expand Access to the ConnectorCard or a Similar Subsidy Program;
- Streamline the ConnectorCard Application and Reloading Process; and
- Explore Additional Options for Spontaneous Non-Employment/Non-Medical Trips for MetroAccess Customers.

Expand Access to the ConnectorCard or a Similar Subsidy Program

The ConnectorCard provides older adults subsidized funds on a debit card that they can use to pay for a wide range of transportation options, such as taxis, public transit, and TransportDC. In some cases, the District likely pays a lower subsidy on ConnectorCard trips than for trips made using services such as MetroAccess or the Seabury Connector. The ConnectorCard program fully utilizes its existing financial allocation, limiting opportunities to serve more residents. DDOT and DCOA should investigate the financial implications of expanding the ConnectorCard program to serve additional older adults in the District. One potential challenge to increasing the subsidy under the ConnectorCard program is that federal funding sources typically restrict the use of fare subsidy funds on transportation services that also receive federal funding.

Streamline the ConnectorCard Application and Reloading Process

The ConnectorCard program has a paper-based, multi-step application and re-load process that accessDC study participants noted is time-consuming and confusing for residents. DCOA and Seabury Resources should consider opportunities to streamline the application and re-load process for the existing ConnectorCard program. If the District provides additional funding to expand the ConnectorCard program, DCOA should consider adding online sign up and card re-load options. An online portal would enable staff at District agencies and organizations to more easily assist residents in signing up for and reloading their ConnectorCard. Residents or caretakers with internet access would also be able to manage participant accounts directly. It is important to remember that subsidy programs typically require residency verification during the application process. Any changes to an online system would need to incorporate the appropriate verification steps.

One potential feature requested by study participants is the ability to have funds directly deposited onto a senior SmarTrip card, eliminating a trip to a vendor location to transfer funds from the ConnectorCard.

- These types of changes would require initial and ongoing costs that need to be considered. One way to mitigate some of that is to evaluate the potential to leverage an existing online application and payment platform used for another District program.

SHORT-TERM LAYERED STRATEGIES COMPONENTS

The accessDC study team developed three larger-scale layered strategies to improve transportation access for older adults and people with disabilities living in the District. Each of these strategies have smaller-scale components that could provide significant benefits for District residents independent of the broader layered strategy. These short-term components include the following:

- Train linkage staff to perform “warm hand-offs”;
- Create an accessible mobility open data portal; and
- Allow TransportDC customers to request trips using the DC Taxi Mobile App.

Train Linkage Staff to Perform “Warm Hand-Offs”

Many District residents speak with staff at multiple District transportation linkages and service providers before identifying a mobility option. This process increases the time it takes for a customer to complete their request, while leaving provider staff unable to determine whether a customer was able to find solutions for their questions. Many social service agencies now train staff to provide “warm hand-offs” (also known as attended call transfers) to streamline call transfers to other service providers. With a warm hand-off, a call taker stays on the call with a customer while the caller is transferred to another agency or organization. In some cases, the call taker may hang up after confirming the call has been successfully transferred. For more advanced hand-offs, the call taker may provide information about the customer’s request, limiting the amount of times a customer has to repeat and reconfirm details of their request.

Most modern business phone systems include technology to perform attended call transfers. Increasing the use of warm-hand offs by District agencies and organizations therefore provides a cost-effective opportunity to streamline transportation information requests. The accessDC study team recommends that DCOA and the Office of the Chief Technology Officer (OCTO) explore opportunities to provide warm hand-off training to District transportation linkage and service provider staff. These trainings could be provided directly by DCOA or OCTO, or the agencies could create training materials and distribute them to staff at participating organizations.

Allow TransportDC Customers to Request Trips Using the DC Taxi Mobile App

District residents and visitors can hail and pay for taxi trips using the DC Taxi App, which is provided by DFHV. The DC Taxi App also allows customers to request specifically a wheelchair-accessible taxicab. The TransportDC program, however, is not currently integrated with the DC Taxi App. TransportDC customers must request trips by calling a 1-800 number, which transfers the call to dispatchers of participating taxi companies. Customers must also call the taxi companies directly for ride status updates.

- DFHV should explore opportunities to integrate the TransportDC program with the DC Taxi App. This integration should ideally allow customers to request TransportDC trips on either a standard or wheelchair-accessible taxicab, monitor ride status (i.e. vehicle location and

estimated time of arrival), and pay for their trip. Ideally, the trip payment integration should be compatible with the ConnectorCard debit card, as many customers currently use the ConnectorCard to pay for their TransportDC trips. It would also reduce the call volume for taxi company dispatchers. In order to make this happen, the current manual customer and trip eligibility process for TransportDC requests would need to be automated or done online. Also, taxicab drivers would need to opt-in to a separate dispatching platform in order to accept requests from the DC Taxi App since only a portion of the District taxi fleet is currently on the app platform.

7. LAYERED IMPROVEMENT STRATEGIES

The accessDC study team identified and analyzed three large-scale, comprehensive strategies that would fundamentally change how older adults and people with disabilities access District transportation options. All of the strategies listed below would need to be further studied individually to determine the best approach to implementation, along with the needed personnel and budget to ensure customer needs are fully met. These strategies included:

- **The No Wrong Door Model**, which would enable District residents to access high quality transportation service information from agencies and organizations with whom they have existing relationships.
- **Accessible Trip Planning**, which would enable District residents to plan door-to-door public transit trips based on their travel preferences and accommodation requirements.
- **Advanced Trip Booking**, which would enable District residents to plan and directly book trips on a range of transportation options through a single platform.

Each of these strategies are independently implementable, but also have compounding benefits if implemented together. The study team thus refer to these approaches as “layered improvement strategies.” It should be noted that the cost of implementation and funding mechanisms would need to be identified and appropriated to implement any of these study recommendations. Timelines noted in this section begin after funds become available for each recommendation.

The accessDC study team recommends that DDOT first explore the No Wrong Door Model and Accessible Trip Planning layered improvement strategies. Both of these strategies would significantly enhance transportation access for District residents, while not significantly altering how DDOT and its partners provide transportation services and information. The study team recommends that DDOT further study Advanced Trip Booking, specifically weighing the cost of implementation compared to the benefits afforded to District residents, as well as determining whether the strategy would create unbalanced demand for certain District transportation options.

NO WRONG DOOR MODEL

Older adults and people with disabilities, like all District residents, typically need to identify a transportation option in the context of completing an activity or obtaining a service. For example, a resident may have an appointment with a new doctor and need to find a transportation option to get them to an unfamiliar hospital. In some cases, residents may be easily able to identify a transportation provider that can serve their trip. However, in many situations, especially for older adults and people with disabilities, identifying a mobility option can be a challenge. Residents may call a familiar service provider and find they are unable to serve their trip, or call a transportation linkage that recommends they try calling different service providers. While many District residents ultimately find an option that meets their needs, the process can be long, confusing, and inconvenient.

Opportunity

No Wrong Door is a person-centered service delivery model, designed to provide clients seamless, comprehensive access to available resources. The model is designed to decrease barriers to obtaining and managing services, limiting the amount of time a client must spend navigating through an often-complicated web of providers. In a transportation-focused No Wrong Door model, staff members at transportation linkages and providers would be trained to connect residents with available transportation options offered throughout the District (see Figure 10). Staff would either provide transportation information to the resident directly, or seamlessly connect the resident to an agency or organization that could complete their request. A more advanced No Wrong Door approach could additionally consolidate the customer intake process, reducing the number of duplicative applications that customers need to complete to access multiple services. Customer profiles and eligibility information could also be securely shared between certain providers, enabling residents to more quickly access personalized transportation recommendations.

A transportation-focused No Wrong Door model provides significant benefits for existing and future specialized transportation customers, especially as residents age, experience changes in disability status, or have changes in income. For example, an older adult without disabilities could call TransportDC to request a trip to the doctor. Under the status quo, the TransportDC dispatcher may simply tell the resident they are ineligible to use the service, leaving the resident without a viable transportation option. With the No Wrong Door model, that dispatcher would be able to easily identify the Seabury Connector as a potential option and connect the resident to Seabury using a warm hand-off.

Figure 10 | No Wrong Door Approach for Transportation Diagram



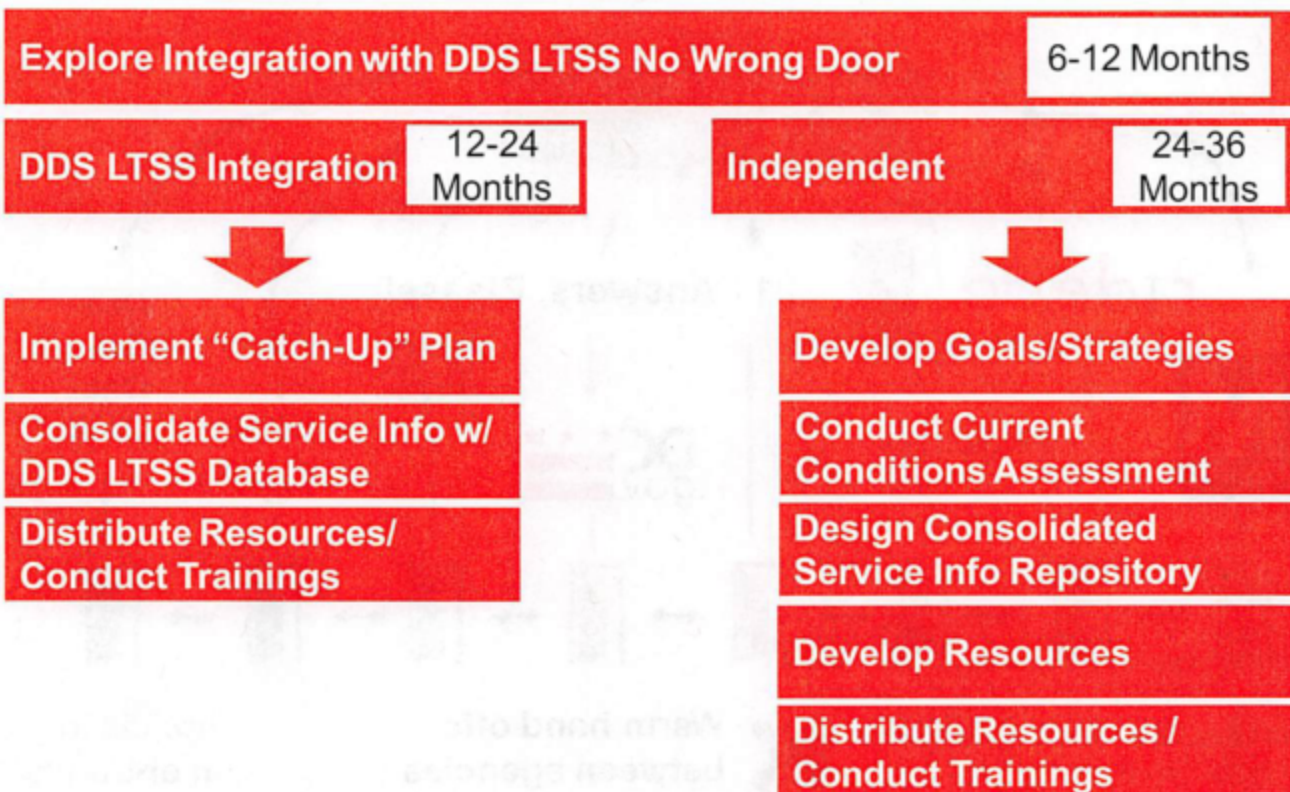
Implementation Strategy

To implement the No Wrong Door model, DDOT could integrate transportation services into the Department of Disability Services (DDS) current No Wrong Door system for long-term services and supports (LTSS). DDOT could begin the No Wrong Door implementation process by engaging with DDS staff to gain a better understanding of the existing LTSS No Wrong Door program. DDOT and DDS staff would next begin in-depth conversations with both existing LTSS partners and potential transportation service partners to identify specific benefits and desired outcomes of integrating transportation into the LTSS No Wrong Door system.

Alternatively, DDOT could develop an independent No Wrong Door system for transportation services. This process would require the following implementation steps:

- **Develop Goals and Strategies:** Using findings from the accessDC study, DDOT and its partners, potentially through the Transportation Collective, would first develop concrete goals and strategies for the No Wrong Door system.
- **Conduct a Current Conditions Assessment.** DDOT and its partners would next conduct a robust current conditions assessment, including a specific focus on customer intake and eligibility determination processes. This assessment will enable DDOT to determine which processes could be successfully integrated into a No Wrong Door approach.
- **Design a Consolidated Service Information Repository.** DDOT and its partners would next develop a consolidated service information repository, designed to streamline access to information by providers and linkages integrated into the No Wrong Door system.

Figure 11 | No Wrong Door Implementation Pathways



- **Develop Resources.** DDOT and its partners would next develop training materials and other resources needed to successfully implement the No Wrong Door model for transportation.
- **Distribute Resources and Conduct Trainings.** DDOT and its partners would next develop a resource distribution plan and conduct trainings with staff at participating agencies.

Based on further discussions and analysis, the District should determine whether to proceed with integrating transportation into the DDS No Wrong Door system, or pursue the independent development of a No Wrong Door system for transportation services. Figure 11 provides an overview of both potential implementation pathways.

ACCESSIBLE TRIP PLANNING

Throughout the accessDC study, older adults and people with disabilities expressed a desire to have increased access to the District's fixed-route public transportation network. Metrorail, Metrobus, and the DC Circulator, among other public transit options, provide frequent service throughout the District, and allow for more spontaneous mobility than most specialized transportation options. Many study participants, however, expressed hesitation toward using public transit, in part because they had previously experienced unexpected challenges when using District transit services. Without programs and strategies to increase confidence in their ability to complete trips using public transit, many study stakeholders simply forgo public transit and rely exclusively on specialized transportation.

Opportunity

Accessible trip planning is an emerging strategy that enables customers to plan a public transit trip based on their travel preferences and accommodation requirements. Like traditional public transit trip planners, such as Google Maps, accessible trip planners are programmed with public transit schedule information and real-time vehicle locations. Accessible trip planners build on this standard dataset to include information about the accessibility of transit vehicles, stops, stations, and paths between transit and origins/destinations. These additional features provide vital information that enables potential customers to identify when public transportation is a realistic option for a given trip.

The WMATA Trip Planner was one of the first public transit trip planners to incorporate accessible trip planning principles. The Trip Planner is integrated with WMATA's bus stop information database, which includes attributes related to the accessibility of each bus stop served by Metrobus. Customers can use the trip planner to identify a potential public transit itinerary, and then individually check the accessibility features of each bus stop in the itinerary. The bus stop information database also includes street images, enabling customers to orient themselves to the stop and determine whether there are nearby accessible pathways. Customers however cannot preselect accommodation requirements or preferences before receiving an itinerary. As a result, customers may determine that public transit is not an option, even if there may a potential public transit itinerary that meets their travel requirements.

DDOT and its partners are in a unique position to expand accessible trip planning options for District residents. Government agencies in the Metropolitan Washington region have developed robust

transportation datasets, several of which focus specifically on accessibility. Key datasets for the development of an accessible trip planner include, but are not limited to:

- **Real-Time GTFS**, providing transit route and schedule information, as well as next vehicle arrival information based on real-time location, for most transit operators in the region
- **WMATA Bus Stop Information**, a database that includes accessibility information for WMATA bus stops throughout the region
- **DDOT Sidewalk Accessibility Inventory**, an in-development inventory of sidewalk accessibility throughout the District
- **ELstat Elevator Alert System**, which provides real-time updates on the status of WMATA elevators

The datasets can be leveraged in tandem to provide a complete profile of the accessibility of a given transit trip. The DDOT sidewalk accessibility inventory provides information about the accessibility of pathways between an origin or destination and a given transit stop. The WMATA bus stop database can be used to determine whether a given bus stop is accessible to the customer, while the ELstat Elevator Alert System identifies elevator outages that may render a Metrorail stop temporarily inaccessible. Real-Time GTFS enables the customer to track their transit vehicle, ensuring that they do not have to wait outside in potential hazardous conditions. While each of these datasets are available to District residents, they are currently dispersed across several websites and are generally inaccessible to residents without a computer and internet access.

The accessDC study team recommends that DDOT and its partners leverage existing datasets to increase the accessibility of accessible trip planning options. The Accessible Trip Planning layered improvement strategy is centered around five long term goals:

- Creating an Accessible Trip Planner that enables District residents to plan public transportation trips based on their travel preferences and accommodation requirements.
- Formalizing accessible trip planning information access points for District residents that prefer to communicate in-person or via the phone.
- Developing and funding processes to regularly update bus stop and sidewalk accessibility information.
- Incorporating real-time data to ensure that customers have the most up-to-date information about factors that could affect their trip.
- Utilizing open data standards and open source software to reduce barriers for adding new features and onboarding new transportation providers, as well as to leverage resources from potential public and private partners.

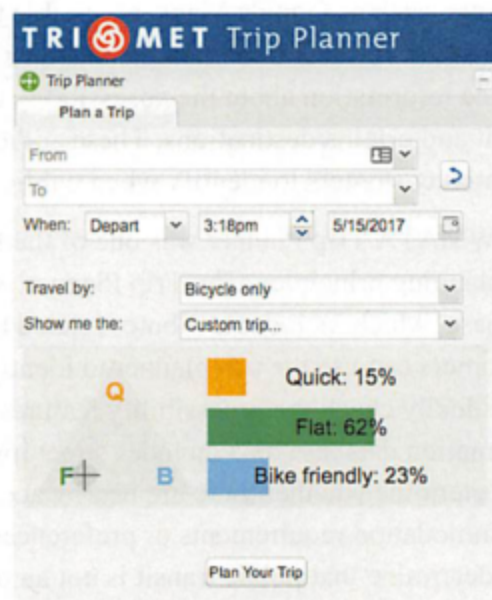


Figure 12 | TriMet Trip Planner Preferences

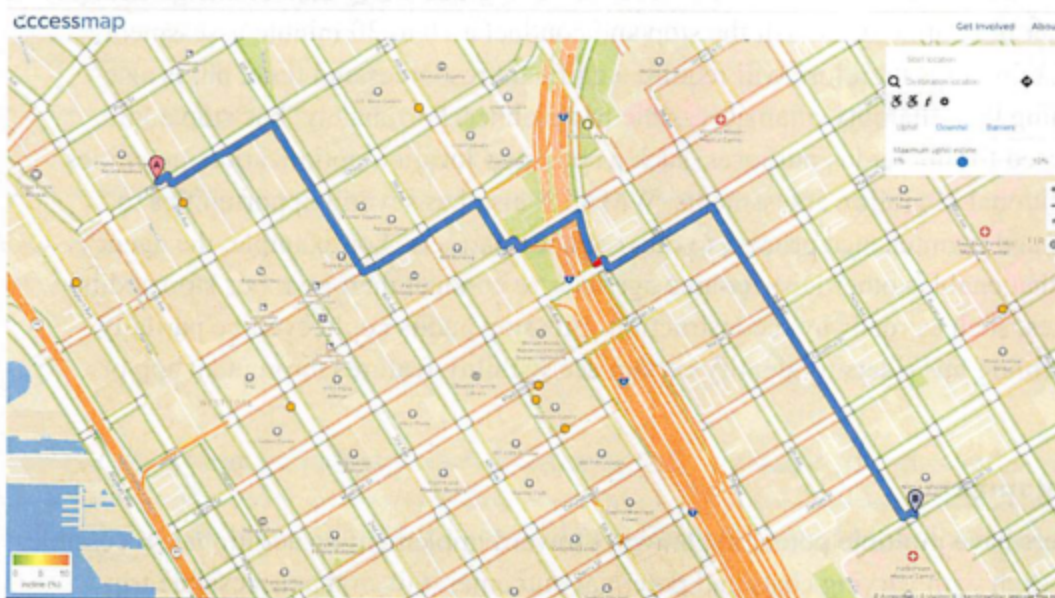
Best Practices

Accessible trip planning is an emerging strategy, and thus current iterations of accessible trip planners are still limited in terms of functionality. The most robust accessible trip planners currently available focus on either walking/wheeling trips or trips by bicycle. The TriMet Trip Planner (Portland, OR) enables customers to plan bicycle trips based on how much a user values a trip being quick, flat, or bicycle-friendly (see Figure 12). The online trip planner enables customers to weight each of these variables, and then creates a trip itinerary that best matches the customer's preferences. AccessMap (Seattle, WA) provides a similar travel planning option for people making walking/wheeling trips. Customers can use AccessMap to create a customized itinerary based on several factors, including maximum uphill or downhill sidewalk slope, curb ramp availability, and avoiding known construction zones (see Figure 13).

Both the TriMet Trip Planner and AccessMap are based on the open source OpenStreetMap and OpenTripPlanner platforms. These platforms enable the development of customized trip planners without relying on expensive and limiting closed systems typically provided by for-profit third-party software developers. Both trip planners build upon OpenStreetMap data with additional publicly available datasets. For example, AccessMap uses sidewalk and curb ramp data from the Seattle Department of Transportation, elevation data from the United States Geological Survey, and street crossing data developed University of Washington students and faculty for a "hackathon" competition.

Both the TriMet Trip Planner and AccessMap provide ideal examples for how the study team recommends that DDOT approach accessible trip planning. Open source software was used as the basis for both platforms, enabling the developers to create a high-quality trip planner at a lower cost. Both platforms leverage existing datasets from a variety of sources to provide a user-friendly accessible trip planning option. AccessMap, in particular, was developed through a collaborative process between government agencies, a university, and crowdsourced information.

Figure 13 | Example AccessMap Itinerary



Implementation Strategy

DDOT and its partners face two primary challenges for implementing an advanced accessible trip planner: (1) the cost and complexity of developing an advanced trip planner, and (2) ensuring that included datasets provide routinely reliable information to customers. In response to these challenges, the accessDC study team separated the Accessible Trip Planner implementation strategy into two separate processes: data reliability coordination and trip planner development.

Data Reliability Coordination

Accessible trip planning tools in the District will rely on datasets developed by several different government agencies and organizations. Many of these datasets require significant staff time – and thus funding – to maintain or expand, especially data on the accessibility of sidewalks and bus stops. Before creating more robust accessible trip planning tools, DDOT and its partners should first determine the accuracy of existing datasets and develop a data maintenance strategy. This strategy should satisfy the following questions:

- Which datasets are essential for the development of high quality accessible trip planning tools? Who creates and controls those datasets? When were those datasets last audited and updated?
- What resources are required to bring included datasets up-to-date? What are the ongoing resource needs to maintain updated datasets in the future?
- What other purposes do included datasets serve? Are there opportunities to leverage datasets for other use cases?
- Is it possible to distribute maintenance responsibilities across multiple agency partners?

This process, for example, could be applied to the WMATA Bus Stop Information database. This dataset was developed in the mid-2000s, and many entries have not been updated for nearly ten years. Some bus stops deemed inaccessible during the original audits may have since received accessibility upgrades, and thus the dataset likely needs to be upgraded. Bus stop audits generally require a staff member or contractor to visit the stop and conduct a 10 to 30 minute assessment. A full audit of all WMATA stops therefore will require significant resources and time, but is also essential to maintaining the reliability of an accessible trip planner. Fortunately, bus stop audit information can be used for numerous purposes, such as bus stop location optimization, amenities placement, and conditional eligibility assessments. WMATA also has several opportunities to disperse the auditing and maintenance process to other agency partners. For example, the agency could create an app that enables other District-area agencies to conduct their own bus stop audits during other processes, such as roadway reconstruction. Bus stop audits could even be partially crowdsourced by enabling bus riders to identify certain accessibility features through an app or online portal.

Trip Planner Development

DDOT and its partners have multiple potential pathways toward implementing additional Accessible Trip Planning tools, each with varying costs and potential outcomes. Given that accessible trip

planning is a relatively nascent field, DDOT should first issue a Request for Information (RFI) to provide clarity about available development options. This RFI should outline the five long term goals described above, but also make clear that potential respondents have flexibility in what elements and functionalities they propose. The RFI process will likely show that certain accessible trip planning elements are easily implementable, while others require either a more in-depth development process or more significant data collection efforts.

After completing the RFI process, DDOT and its partners will likely have some variation of three pathways to implementation:

- **Integrate with Existing WMATA/DDOT Trip Planners.** Both WMATA and DDOT have previously developed online trip planners. Either agency could implement gradual improvements to their trip planners to incorporate new accessible transportation information and increase accessible trip planning functionality. This implementation strategy would allow the District to build upon previous investments, while incorporating accessible trip planning concepts into transportation linkages that District residents are already using every day. However, DDOT and its partners would continue to be restricted by limitations established by the third-party software developers that own much of the technology underlying both the WMATA and DDOT trip planners.
- **Develop a New Accessible Trip Planner.** DDOT and its partners could choose to work either in house or with a third party developer to develop a completely new accessible trip planner. This implementation pathway would likely require a greater financial investment than other options, but would give DDOT significantly more flexibility in creating a tool that best fits the needs of District residents. DDOT would also be able to incorporate open source and data policies from the outset of the development process. If DDOT pursues this implementation pathway, the study team strongly recommends that DDOT identify and coordinate with government agencies in other regions to create a standardized accessible trip planning platform. Co-developing a standardized platform would enable DDOT to distribute development costs across partner agencies, and provide opportunities to leverage future platform improvements.
- **Incorporate Data into Existing (or New) Third Party Trip Planners.** Instead of directly developing an accessible trip planner, DDOT and its partners could encourage third-party software developers to incorporate accessible travel data into their own trip planning solutions. In this implementation strategy, DDOT and its partners would create an accessibility mobility data repository (through an implementation process described in Chapter 6) and establish data maintenance protocols. DDOT would then widely publicize the availability of the repository, and reach out directly to potential third-party partners. DDOT could, for example, sponsor a “hackathon” and provide awards to incentivize participation. If a highly functional third-party accessible trip planner emerges, DDOT could choose to officially endorse the planner (similar to how the MBTA officially endorses the Transit App).

Figure 14 provides an overview of the tradeoffs of each implementation approach.

Figure 14 | Accessible Trip Planning Implementation Pathway Tradeoffs

Implementation Pathway	Timeline*	Cost	Implementation Flexibility
Integrate with Existing Trip Planners	12-24 Months	Moderate/High	Low to Moderate
Develop New Trip Planner	12-36 Months	High	High
Incorporate Data into Third-Party Trip Planners	6-12+ Months	Minimal to Moderate	Low

*The timeline noted begins after funding is approved and allocated and after the RFI.

ADVANCED TRIP BOOKING

Advanced trip booking platforms are generally considered the most advanced version of a one-call/one-click system, functioning as a Level 5 transportation linkage as proposed by *NCHRP Report 832*. The platforms integrate service and eligibility information for a variety of transit options with direct links to trip booking software packages. These designs enable customer to understand their transportation options overall, identify a service that works for a specific trip, and then, if applicable, directly book or reserve a trip on that service.

Advanced trip booking platforms have been developed and implemented by several transit agencies and state transportation departments across the United States, primarily through Veterans Transportation and Community Living Initiative (VTCLI) grants distributed in 2011 and 2012. The Jacksonville (FL) Transportation Authority (JTA), for example, developed the TransPortal platform using VTCLI grant funds. TransPortal enables customers to plan trips via several public transportation options, including fixed-route buses, the paratransit system, and the JTA dial-a-ride service. Customers can directly book paratransit trips and dial-a-ride trips through the platform. One key outcome from the program has been that paratransit customers are able to understand when the dial-a-ride service may be a better mobility option, and some customers have begun more regularly using the dial-a-ride rather than paratransit.

The study team ultimately did not recommend that DDOT and its partners pursue an advanced trip booking platform in the context of the accessDC study due to the following factors:

- **Geographic Scope.** The accessDC study focused primarily on enhancing District resident's access to District-funded transportation services. *NCHRP Report 832* recommends that advanced transportation linkages serve entire metropolitan areas or states, ensuring that customers can identify options for all their typical trips. If District residents routinely found that they could not book trips to destinations outside of the District proper, they would likely quickly stop using the platform.
- **Available Range of Services.** The existing conditions analysis determined that accessDC stakeholders complete most of their trips on a limited range of District-funded services. Apart from these services, most specialized transportation options in the District serve highly targeted populations. Organizations providing these services likely do not use scheduling and dispatching software, and would have limited incentive to begin using such software.

Therefore, it is probable that an advanced trip booking platform would only include MetroAccess, TransportDC, and the Seabury Connector.

- **Potential Demand Imbalance.** Advanced trip booking platforms, especially if poorly implemented, can draw customers toward services that have broader eligibility requirements. This design can present two challenges for transportation service providers and funders. First, a platform could direct customers to use a service with limited capacity, overwhelming the provider. Second, customers could be directed to a service with a higher subsidy, even when their trip could be similarly (or better) served by a different provider at a lower cost. Given the mix of services available to older adults and people with disabilities in the District, the study team determined they did not have access to enough data to determine whether either of these issues would occur if the District implemented an advanced trip booking platform.
- **Existing Advanced Trip Booking Options.** Older adults and people with disabilities currently have access to advanced trip booking options for some District services. MetroAccess customers can book trips using an online portal, and do so at a much higher rate than is typical in other large metropolitan areas. All District residents can request wheelchair accessible taxicabs using the DC Taxi App, and it is likely possible for TransportDC trip requests to be incorporated into the app in the future. Given the availability of online and app-based trip booking for some of the most utilized District transportation options, there is significantly less benefit to creating an advanced trip booking platform.

The accessDC study team recommends that DDOT and its partners conduct a further study to determine whether an advanced booking system would provide substantial benefits to District residents. This study should focus on:

- Desire for an advanced trip booking option among both specialized transportation customers and agencies and organizations that serve older adults and people with disabilities.
- Potential opportunities to coordinate with agencies in Maryland and Virginia to create a regional advanced trip booking platform.
- Opportunities to integrate non-District funded transportation options, as well as Medicaid transportation services.
- Simulations focusing on how access to an advanced trip booking platform may impact how District residents make transportation choices (i.e., whether a platform would encourage more residents to use one type of service over another).

8. OTHER ISSUES OF CONCERN

The accessDC study team also noted that issues with TransportDC's current operations was a recurring theme at PAC meetings and the Open Mic sessions. The team proposes that the following strategy be studied further.

Explore Additional Options for Spontaneous Non-Employment/Non-Medical Trips for MetroAccess Customers

The TransportDC program currently allows MetroAccess customers to travel to any destination before the 15th day of each month. Due to funding limitations, customers can only use the service to travel to and from pre-approved employment and medical destinations after the 15th. Many accessDC study participants noted that the trip eligibility restriction makes traveling more difficult during the second half of each month, and requested that the District explore additional options for spontaneous general-purpose trips. An expanded alternative service program may also provide benefits for the District, as TransportDC or other cost-effective alternatives would have trips with a lower subsidy than MetroAccess trips.

DFHV, WMATA, and DDOT should explore additional options for spontaneous non-employment/non-medical trips for MetroAccess customers. The agencies should first conduct a financial analysis of the TransportDC program to determine whether the existing program reduces the cost of providing MetroAccess service, and whether it can be optimized further. Based on this analysis, the agencies should determine whether or not modifications to TransportDC or the development of a new alternative service for MetroAccess customers would yield significant benefits or not. A comprehensive study would take a minimum of a year to complete and may require a specified funding allocation.

accessDC Study